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इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके
(Separate paging is given to this Part in order that it may be filed as a separate compilation)

भाग I—खण्ड 3

PART I—SECTION 3

रक्षा मंत्रालय द्वारा जारी किये गये विधिक नियमों, विनियमों, आदेशों और संकल्पों से सम्बन्धित अधिसूचनाएं

Notifications relating to Non-Statutory Rules, Regulations, Orders and Resolutions issued by the Ministry of Defence

MINISTRY OF DEFENCE

NOTIFICATION

New Delhi, the 12th October 1968

No. 2510 dated the 19th September 1968.—An examination for admission to the Army, Navy and Air Force Wings of the National Defence Academy shall be held by the Union Public Service Commission at such places and on such dates as may be specified in the Notice issued by the Commission in this behalf. The number of the course and the month of its commencement at the Academy and also the approximate number of vacancies to be offered for entry on the results of the examination will be specified in the Notice issued by the Commission.

2. Admission to the National Defence Academy will be made on the results of a written examination to be conducted by the Union Public Service Commission, and an interview by a Services Selection Board.

3. Candidates should indicate in the application form their order of preference if they wish to compete for more than one Service. Due consideration will be given to the preference expressed by a candidate at the time of his application, but the Government of India reserve the right to assign him to any Service or branch of Service taking into consideration the vacancies available in each Service or branch and the aptitude of the candidate.

NOTE I.—Sailors (including boys and artificer apprentices) of the Indian Navy must give Indian Navy as their first preference.

NOTE II.—Candidates who have applied for the Indian Navy Examination for admission as Special Entry Cadets into the Indian Navy must exercise their final option before admission to the National Defence Academy course. After admission, they will not be considered for special Entry in the Navy. They will also not be permitted to appear for any interview or examination after admission to the Academy.

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4. A candidate must be an unmarried male and must be either :—

- a citizen of India, or
- a subject of Sikkim, or
- a subject of Bhutan, or
- a subject of Nepal, or
- a person of Indian origin who has migrated from Pakistan, Burma, Ceylon and the East African Countries of Kenya, Uganda and the United Republic of Tanzania (formerly Tanganyika and Zanzibar) with the intention of permanently settling in India.

Provided that a candidate belonging to categories (d) and (e) above shall be a person in whose favour a certificate of eligibility has been issued by the Government of India.

Certificate of eligibility will not, however, be necessary in the case of candidates belonging to any one of the following categories :—

- Persons who migrated to India from Pakistan on or after the nineteenth day of July, 1948, and have got themselves registered as citizens of India under Article 6 of the Constitution;
- Gorkha subjects of Nepal.

A candidate in whose case a certificate of eligibility is necessary may be admitted to the examination and he may also provisionally be admitted to the Academy subject to the necessary certificate being given to him by the Government.

NOTE.—A widower or a person who has divorced his wife cannot be treated as an unmarried male for the purpose of the above Rule.

5. CANDIDATES SHOULD BE MEDICALLY FIT IN ALL RESPECTS FOR SERVICE IN ANY PART OF THE WORLD. THE STANDARDS OF MEDICAL FITNESS

ARE SHOWN IN APPENDIX II TO THE NOTIFICATION.

A NUMBER OF QUALIFIED CANDIDATES ARE REJECTED SUBSEQUENTLY ON MEDICAL GROUNDS. CANDIDATES ARE, THEREFORE, ADVISED IN THEIR OWN INTEREST TO GET THEMSELVES MEDICALLY EXAMINED BEFORE SUBMITTING THEIR APPLICATIONS TO AVOID DISAPPOINTMENT AT THE FINAL STAGE.

A sufficient number of suitable candidates recommended by the Services Selection Board will be medically examined by a Board of Service Doctors. A candidate who is not declared fit by the Medical Board will not be admitted to the Academy. The very fact that the medical examination has been carried out by a Board of Service Doctors will not mean or imply that the candidate has been finally selected. The proceedings of the Medical Board are confidential and cannot be divulged to any one. The results of candidates declared unfit/temporarily unfit are intimated to them along with the procedure for submission of fitness certificate and appeal. No requests for the results of Medical Board will be entertained by the President of the Medical Board.

Candidates for the Army are advised in their own interest that if their vision does not come upto the standard, they must bring with them their correcting glasses if and when called up for Services Selection Board Interview/Medical Examination.

6. Candidates must undertake not to marry until they complete their full training. A candidate who marries subsequent to the date of his application, though successful at this or any subsequent examination, will not be selected for training. A candidate who marries while in training shall be discharged and will be liable to refund all expenditure incurred on him by the Government.

7. A candidate for admission to the examination must have attained the age of 15 years and must not have attained the age of 17½ years on the first day of the month in which the course at the National Defence Academy is due to commence.

THE PRESCRIBED AGE LIMITS CAN IN NO CASE BE RELAXED.

8. A candidate must have passed one of the following examinations or must possess one of the following certificates :—

- (i) the Matriculation Examination of any University incorporated by an Act of the Central or State Legislature in India;
- (ii) an examination held by a State Education Board at the end of the Secondary School Course for the award of a School Leaving/Secondary School, High School or any other Certificate which is accepted by the Government of that State as equivalent to Matriculation Certificate for entry into services;
- (iii) the Cambridge School Certificate Examination (Senior Cambridge);
- (iv) European High School Examination held by the State Government.
- (v) Tenth Class Certificate from the Technical Higher Secondary School of the Delhi Polytechnic;
- (vi) Tenth Class Certificate from a recognised Higher Secondary School or from a recognised School preparing students for the Indian School Certificate Examination;
- (vii) Junior examination of the Jamia Millia Islamia Delhi in the case of *bona fide* resident students of the Jamia only;
- (viii) Bengal (Science) School Certificate.
- (ix) Final School Standard Examination of the National Council of Education, Jadavpur, West Bengal (since inception);
- (x) the following French Examinations of Pondicherry: (i) 'Brevet Elementaire'; (ii) 'Brevet D'Enseignement Primaire de Langue Indienne'; (iii) 'Brevet D'etudes du Premier Cycle'; (iv) 'Brevet D'Enseignement Primaire Supérieur de Langue Indienne'; and (v) 'Brevet de Langue Indienne (Vernacular)';
- (xi) the Indian Army Special Certificate of Education;

- (xii) the Higher Education Test of the Indian Navy;
- (xiii) Advanced Class (Indian Navy) Examination;
- (xiv) Ceylon Senior School Certificate Examination;
- (xv) Certificate granted by the East Bengal Secondary Education Board, Dacca;
- (xvi) Secondary School Certificate granted by the Board of Secondary Education at Comilla/Rajshahi/Khulna in East Pakistan;
- (xvii) School Leaving Certificate Examination of the Government of Nepal;
- (xviii) the Anglo-Vernacular School Leaving Certificate (Burma);
- (xix) the Burma High School Final Examination Certificate;
- (xx) Post-War School Leaving Certificate of Burma;
- (xxi) General Certificate of Education Examination of London University at 'Ordinary' level provided it is passed in five subjects including English;
- (xxii) General Certificate of Education Examination of the Associated Examination Boards, London, at 'Ordinary' level provided it is passed in five subjects including English;
- (xxiii) General Certificate of Education Examination of Ceylon at 'Ordinary' level provided it is passed in six subjects including English and Mathematics and either Sinhalese or Tamil;
- (xxiv) the 'Vinit' examination of the Gujarat Vidyapith, Ahmedabad;
- (xxv) Pass in the 5th Year of 'Lyceum', a Portuguese qualification in Goa, Daman and Diu.
- (xxvi) Junior/Secondary Technical School examination conducted by any of the State Boards of Technical Education.

NOTE 1.—In exceptional cases the Union Public Service Commission may treat a candidate who has not any of the foregoing qualifications, as a qualified candidate, provided that he has passed examinations conducted by other institutions, the standard of which in the opinion of the Commission justifies his admission to the examination.

NOTE 2.—A candidate who has appeared at an examination the passing of which would render him eligible to appear at this examination but has not been informed of the result may apply for admission to the examination. A candidate who intends to appear at such a qualifying examination may also apply. Such candidates will be admitted to this examination, if otherwise eligible, but the admission would be deemed to be provisional and subject to cancellation if they do not produce proof of having passed the examination, as soon as possible, and in any case not later than a date which may be fixed by the Union Public Service Commission in this regard.

9. Candidates who were admitted to an earlier course at the National Defence Academy but were removed therefrom for lack of officer-like qualities or on disciplinary grounds will not be admitted to the Academy.

Candidates who were previously withdrawn from the National Defence Academy on medical grounds or left the above Academy voluntarily are, however, eligible for admission to the Academy provided they satisfy the medical and other prescribed conditions.

10. The decision of the Commission as to the eligibility or otherwise of a candidate shall be final.

11. A candidate who is or has been declared by the Commission guilty of impersonation or of submitting fabricated documents or documents which have been tampered with or of making statements which are incorrect or false or of suppressing material information or otherwise resorting to any other irregular or improper means for obtaining admission to the examination, or of using or attempting to use unfair means in the examination hall or of misbehaviour in the examination hall, or of being found to have in his possession or accessible to him unauthorised papers, books or

notes etc. in the examination hall may, in addition to rendering himself liable to criminal prosecution, be debarred either permanently or for a specified period :—

- (a) by the Commission from admission to any examination or appearance at any interview held by the Commission for selection of candidates; and
- (b) by the Central Government from employment under them.

12. No candidate shall be admitted to the examination unless he holds a certificate of admission from the Commission.

13. Any attempt on the part of a candidate to obtain support for his candidature by any means may disqualify him for admission.

14. The examination will be conducted by the Commission in the manner prescribed in Appendix I to the Notification.

15. Candidates must pay the fee prescribed in Annexure 1 to the Commission's Notice.

16. The Union Public Service Commission shall prepare a list of candidates who obtain the minimum qualifying marks in the written examination as fixed by the Commission in their discretion. Such candidates shall appear before a Services Selection Board for Intelligence and Personality Tests, where candidates for the Army/Navy will be assessed in officer potentiality, and those for the Air Force in Pilot Aptitude and officer potentiality. The maximum marks obtainable at these tests are 900.

To be acceptable, candidates for the Army/Navy should secure the minimum qualifying marks, separately in (i) written examination, and (ii) officer potentiality tests, as fixed by the Commission in their discretion, and candidates for the Air Force should secure the minimum qualifying marks separately in (i) written examination, (ii) officer potentiality test, and (iii) Pilot Aptitude Test, as fixed by the Commission in their discretion. Subject to these conditions, the qualified candidates will then be placed in the final order of merit on the basis of total marks secured by them in the written examination, and the Services Selection Board tests in two separate lists—one for the Army and the Navy and the other for the Air Force. The names of candidates who qualify for all the Services will appear in both the Merit Lists. The final selection for admission to the Army and Naval Wings of the National Defence Academy will be made in order of merit up to the number of vacancies available from the order of merit list for the Army and the Navy and for the Air Force Wing from the order of merit list for the Air Force subject to medical fitness and suitability in all other respects. The candidates who are common to both the merit lists will be considered for selection from both the lists with reference to their order of preferences and in the event of their final selection from one list, their names will be cancelled from the other list.

N.B.—EVERY CANDIDATE FOR THE AIR FORCE IS GIVEN PILOT APTITUDE TEST ONLY ONCE. THE GRADE SECURED BY HIM AT THE FIRST TEST WILL, THEREFORE, HOLD GOOD FOR EVERY SUBSEQUENT INTERVIEW HE HAS WITH THE AIR FORCE SELECTION BOARD. A CANDIDATE WHO FAILS IN THE FIRST PILOT APTITUDE TEST CANNOT APPLY FOR ADMISSION TO THE NATIONAL DEFENCE ACADEMY EXAMINATION FOR THE AIR FORCE WING, OR THE AIR FORCE FLYING COLLEGE EXAMINATION.

Candidates, who have been given the Pilot Aptitude Test for any previous N.D.A. course should submit their applications for this examination only if they have been notified as having qualified in Pilot Aptitude Test.

Candidates will appear before the Services Selection Board and undergo the test thereat at their own risk and will not be entitled to claim any compensation or other relief from Government in respect of any injury which they may sustain in the course of or as a result of any of the tests, given to them at the Services Selection Board, whether due to the negligence of any person or otherwise. Parents or guardians of the candidates will be required to sign a certificate to this effect on the form appended to the application. Candidates when called for interview by a Services Selection Board or for medical examination or for subsequent training will be eligible for travelling allowance in accordance

with the rules then in force. Candidates who have previously been before a Services Selection Board for the same type of Commission are not entitled to travelling allowance when called up for Services Selection Board interview, or Medical Examination, on subsequent occasions.

17. The form and manner of communication of the result of the examination to individual candidates shall be decided by the Commission in their discretion and the Commission will not enter into correspondence with them regarding the result.

18. Success in the examination confers no right of admission to the Academy. A candidate must satisfy the appointing authority that he is suitable in all respects for admission to the Academy.

19. Candidate finally selected will undergo a three-year course at the National Defence Academy. After this three year training the successful candidates will undergo further specialists training for the Service for which they may be selected. While at the National Defence Academy, cadets will be subjected to the discipline of the Academy. Brief particulars of the training and of the Services are given in Appendix III to the Notification.

20. Immediately after the selected candidates join the Academy, a preliminary examination will be held in the following subjects :—

- (a) English;
- (b) Mathematics;
- (c) Science;
- (d) Hindi.

The standard of the examination in the subjects, at (a), (b) and (c) will be that of the Matriculation Examination of an Indian University. The paper in the subject at (d) is intended to test the standard attained by the candidate in Hindi at the time of joining the Academy.

Candidates are, therefore, advised not to neglect their studies after the competitive examination.

21. Before a candidate joins the Academy, the parent or guardian will be required to sign :

- (a) a certificate to the effect that he fully understands that he or his son or ward shall not be entitled to claim any compensation or other relief from the Government in respect of any injury which his son or ward may sustain in the course of or as a result of the training or where bodily infirmity or death results in the course of or as a result of a surgical operation performed upon or anaesthesia administered to him, for the treatment of any injury received as aforesaid or otherwise.
- (b) A bond to the effect that, if for any reasons considered within the control of the candidate he wishes to withdraw before the completion of the course or fails to accept a commission, if offered, he will be liable to refund the whole or such portion of the cost of tuition, food, clothing and pay and allowances received as may be decided upon by Government.

22. The cost of training including accommodation, books, uniforms, boarding and medical treatment will be borne by the Government. Parents or guardians of cadets will, however, be required to meet their pocket and other private expenses. Normally these expenses are not likely to exceed Rs. 30.00 p.m. If in any case a cadet's parent or guardian is unable to meet wholly or partly even this expenditure, financial assistance up to Rs. 30.00 p.m. may be granted by the Government. No cadet whose parent or guardian has an income of Rs. 350.00 p.m. or above would be eligible for the grant of the financial assistance. The immovable property and other assets and income from all sources are also taken into account for determining the eligibility for financial assistance.

The parent/guardian of a candidate desirous of having any financial assistance should immediately after his son/ward having been finally selected for training at the National Defence Academy, submit an application through the District Magistrate of his District who will forward the application

with his recommendation to the Commandant, National Defence Academy, KHARAKVASLA.

23. Candidates finally selected for training at the Academy will be required to deposit the following amount, with the Commandant, National Defence Academy, on arrival there :

(a) Pocket allowance for five months at	
Rs. 30.00 per month	Rs. 150.00
(b) for items of clothing and equipment	Rs. 650.00
Total	Rs. 800.00

Out of the amount mentioned above the following amount is refundable to the cadets in the event of financial aid being sanctioned to them :

(a) Pocket allowance for five months at	
Rs. 30.00 per month	Rs. 150.00
(b) For items of clothing and equipment	Rs. 475.00

24. The following scholarships are tenable at the National Defence Academy.

(1) PARSHURAM BHAU PATWARDHAN Scholarship.—This scholarship is granted to boys who belong to MAHARASHTRA and KARNATAK and whose parent's income is between Rs. 350.00 and Rs. 500.00 per month from all sources. The value of the scholarship is equal to the Government financial assistance. It is admissible for the duration of a Cadet's stay in the National Defence Academy and other Pre-commission training establishments subject to the Cadet's good conduct and satisfactory progress in the training and his parents income remaining below the prescribed limit. Cadets, who are granted this scholarship, will not be entitled to any other financial assistance from the Government.

(2) COLONEL KENDAL FRANK MEMORIAL Scholarship.—This scholarship is of the value of Rs. 360.00 per annum and is awarded to a MARATHA cadet who should be the son of an ex-serviceman. The scholarship is in addition to any financial assistance from the Government.

(3) KUER SINGH MEMORIAL Scholarship.—Two scholarships are awarded to two cadets who obtain the highest position amongst candidates from BIHAR. The value of each scholarship is Rs. 37.00 per mensem tenable for a maximum period of 4 years during the training at the National Defence Academy, Kharakvasla and thereafter at the Indian Military Academy, Dehradun and the Air Force Flying College and Naval Training Establishments where the cadets may be sent for training on completion of their training at the National Defence Academy. The scholarships will however, be continued subject to making good progress at the above institutions.

(4) ASSAM GOVERNMENT Scholarships.—Two scholarships will be awarded to the cadets from ASSAM. The value of each scholarship is Rs. 30.00 per mensem and is tenable for the duration of a cadet's stay at the National Defence Academy. The scholarships will be awarded to the two best cadets from ASSAM without any reference to the income of their parents. The cadets who are granted this scholarship will not be entitled to any other financial assistance from the Government.

(5) UTTAR PRADESH GOVERNMENT Scholarships.—Two scholarships each of the value of Rs. 30.00 per month and an outfit stipend of Rs. 400.00 are awarded to two cadets who belong to UTTAR PRADESH on merit-cum-means basis and are tenable for a period of three years subject to satisfactory performance by the cadet at the National Defence Academy. Cadets who are granted these Scholarships are not entitled to any other financial assistance from Government.

(6) KERALA GOVERNMENT Scholarship.—One scholarship of the annual value of Rs. 360.00 is awarded for each course at the National Defence Academy during the entire period of training by the KERALA State Government to the students who secure admission to the Academy after passing out from the Rashtriya Indian Military College, Dehradun, and who have been domiciled in the State of KERALA.

This scholarship is awarded to the cadets who are not eligible for Government of India assistance and whose parents or guardians have a monthly income below Rs. 500.00 per mensem.

(7) BIHARI LAL MANDAKINI Prize.—This is a cash prize of Rs. 500.00 available for the best BENGALI boy in each Course of the Academy. Application forms are available with the Commandant, National Defence Academy.

(8) ORISSA GOVERNMENT Scholarship.—Three scholarships, one for the Army, one for the Navy and the other for the Air Force of the value of Rs. 80.00 each per month will be awarded by the Government of Orissa to the cadets who are permanent residents of the State of ORISSA. Two of these scholarships will be awarded on the basis of merit-cum-means of the cadets whose parent's or guardian's income does not exceed Rs. 5,000 per annum and the other one will be given to the best cadet irrespective of his parent's or guardian's income.

(9) WEST BENGAL GOVERNMENT Scholarships.—Following categories of scholarships are awarded by the West Bengal Government to those cadets who are permanent residents of WEST BENGAL :—

(a) Category 1.—Three scholarships (one each for Army, Navy and Air Force) at the rate of Rs. 360 per annum during the 1st and 2nd year and at the rate of Rs. 480 per annum during the 3rd year at the Academy and 4th year at the specialised training institution with an initial outfit stipend of Rs. 400 in addition, for those cadets who are not eligible for any other scholarship at the Academy.

(b) Category 2.—Three scholarships of a lump-sum grant of Rs. 100 per annum in addition to Government financial assistance.

(10) Pilot Officer GURMEET SINGH MEMORIAL Scholarship.—One scholarship of Rs. 420.00 per annum is granted to the cadet who stands highest in the overall order of merit amongst Air Force Cadets at the end of the 4th term. It is for the duration of one year (during 5th and 6th terms). This scholarship will be withdrawn if the recipient is relegated or withdrawn during the period of its receipt. The Cadet who is already in receipt of any such merit scholarship or financial assistance is not entitled to this scholarship.

Terms and conditions governing these scholarships are obtainable from the Commandant, National Defence Academy, KHARAKVASLA.

S. DEVANATH
Deputy Secretary

APPENDIX I

1. The subjects of the written examination, the time allowed and the maximum marks allotted to each subject will be as follows :—

Subject	Duration	Maximum Marks
1. English	2½ hours	300
2. General Knowledge and Current Affairs :—		
Paper I		
Current Affairs & History	2 hours	150
Paper II		
Science and Geography ..	2 hours	150
3. Mathematics I	2 hours	150
4. Mathematics II	2 hours	150

2. CANDIDATES ARE EXPECTED TO BE FAMILIAR WITH THE METRIC SYSTEM OF COINS, WEIGHTS AND MEASURES, IN THE QUESTION PAPERS WHEREVER NECESSARY. QUESTIONS INVOLVING THE USE

OF METRIC SYSTEM OF COINS, WEIGHTS AND MEASURES MAY BE SET.

3. All question papers must be answered in English unless otherwise expressly stated in the question paper.

4. Candidates must write the papers in their own hand. In no circumstances will they be allowed the help of a scribe to write the answers for them.

5. The Commission have discretion to fix qualifying marks in any or all the subjects at the examination.

6. Marks will not be allotted for mere superficial knowledge.

7. Deductions up to 5 per cent of the maximum marks for written subjects will be made for illegible handwriting.

8. Credit will be given for orderly, effective and exact expression combined with due economy of words in all subjects of the examination.

SCHEDULE

STANDARD AND SYLLABUS OF THE EXAMINATION

The standard of the papers will approximately be the same as that of the Matriculation Examination.

ENGLISH—

Questions may be asked on any of the following:—

- An exercise in composition to test the candidates' ability to write simple and grammatically correct English.
- A simple prose passage to be condensed by the candidates with the object of testing comprehension and expression.
- Correction of sentences.
- Reported Speech, Questions and Commands.
- Use of simple words having similar pronunciation but different meanings and common phrases.

GENERAL KNOWLEDGE AND CURRENT AFFAIRS—

There will be two papers:

Paper I—dealing mainly with Current Affairs and History.

Paper II—dealing with Science and Geography.

The following syllabus is designed to indicate the scope of each subject included in these papers. The topics mentioned are not to be regarded as exhaustive and question on topics of similar nature not mentioned in the syllabus may also be asked. Candidates' answers are expected to show their intelligent understanding of the questions and not detailed knowledge of any text book.

PAPER I

Current Events.—Knowledge of important events that have happened in India during the past two years, India's system of Government. Important measures of legislation whether undertaken by the Central or State Legislature. Broad questions of India's policy relating to foreign affairs. Question set will test factual knowledge of candidates.

World events of international importance. Important personalities; both Indian and foreign. Sports and other cultural activities of outstanding importance.

Indian History.—Broad outline knowledge of Indian History. Knowledge of India's ancient culture and civilization as disclosed by monuments, ancient buildings and masterpieces of literature. Growth of self-Government. Main stages in the national movement leading to Independence.

World History.—Elementary knowledge of major events in World history. Reforms or national movements such as represented by the French Revolution, Industrial Revolution in the U.K., the American War of Independence, the foundation of U.S.S.R., World Wars I and II, Modern freedom movements in Asia.

PAPER II

SCIENCE—

Physics.—Physical properties and states of matter and simple measurements of mass, weight, density and specific gravity.

Motion of object, velocity, acceleration, force, gravity.

Effects of heat, measurement of temperature, transference of heat, change of state.

Rectilinear propagation of light, phenomenon of reflection and refraction.

Natural and artificial magnets. Properties of a magnet.

Electricity, static and current, conductors and non-conductors, heating, lighting and magnetic effects of currents.

Chemistry.—Physical and chemical changes, elements, mixtures and compounds, chemical properties of air, chemical composition of water. Preparation and properties of Oxygen, Hydrogen and Nitrogen, Acids, Bases and Salts. Carbon, Coal, Carbon-di-oxide.

General.—Elementary knowledge of the human body and its important organs.

Names and uses of common animals, trees, plants, flowers, birds and minerals.

Common epidemics, their causes, means of prevention and cure.

Eminent Scientists and their achievements.

GEOGRAPHY—

The shape and movements of the Earth. Time, Night and Day and the Seasons, Climate and Weather—the main climatic and vegetation regions. The Earth's crust—erosion, transportation and deposition, earthquakes and volcanoes. Tides and Ocean currents; Maps.

Human occupations and activities in relation to Geographical factors.

The Geography of India with special reference to the above.

MATHEMATICS

PAPER I

Arithmetic.—Vulgar and decimal fractions and the extraction of square roots. Ratio and proportion, percentages, averages, profit and loss, simple and compound interest. Conversion of various systems of Weights and Measures. Problems involving time and distance (unitary method).

Stocks and shares omitted.

NOTE.—The use of algebraic methods will be permitted unless stated otherwise in the question paper.

Mensuration.—Determination of areas and volumes associated with rectangular blocks, circular cylinder, cone and sphere. (Practical problems involving these would be given and, if necessary, formulae may be given).

PAPER II

Algebra.—Elementary basic operations—use of brackets—H.C.F., L.C.M., Fractions—Factors—Remainder Theorem, Ratio and Proportion. Indices and Surds (Elementary only). Equations of first and second degree and easy simultaneous equations involving two unknown. Practical problems.

Graphs.—Idea of graphs—Interpolation—Solution of easy quadratic and simultaneous equations.

Geometry.—A thorough understanding of plane Geometry with special emphasis on:—

- Properties of angles at a point.
- Parallel Lines.
- Angles of triangles.
- Congruency of triangles.
- Properties of angles, sides and diagonals of a parallelogram, rhombus, rectangles, square and trapezium.
- Circle and its properties including tangents and normals.
- Cyclic quadrilaterals.
- Idea of projection.
- Similar triangles.

- (x) Practical problems and constructions involving use of geometrical instruments, viz., bisection of an angle and straight line, construction of perpendiculars, parallel lines or triangles, tangents to circles, inscribed and circumscribed circles of triangles.

INTELLIGENCE AND PERSONALITY TEST

In addition to the interview the candidates will be put to Intelligence Tests both verbal and non-verbal, designed to assess their basic intelligence. They will also be put to Group Tests, such as group discussions, group planning, outdoor group tasks, and asked to give brief lectures on specified subjects. All these tests are intended to judge the mental calibre of a candidate. In broad terms, this is really an assessment of not only his intellectual qualities but also his social traits and interests in current affairs.

APPENDIX II

PHYSICAL STANDARDS FOR ADMISSION TO THE NATIONAL DEFENCE ACADEMY

To be passed fit for admission to the National Defence Academy a candidate must be in good physical and mental health and free from any disability likely to interfere with the efficient performance of duty.

2. It will, however, be ensured that :—

- (a) there is no evidence of weak constitution, imperfect development, serious malformation or obesity;
- (b) there is no maldevelopment or impairment of function of the bones or joints;
- (c) there is no impediment of speech;
- (d) there is no malformation of the head, deformity from fracture or depression of the bones of the skull;
- (e) there is no impaired hearing discharge from or disease of either ear, unhealed perforation of the tympanic membranes or signs of acute or chronic suppurative otitis media or evidence of radical or modified radical mastoid operation;

NOTE.—A soundly healed perforation without any impairment of the mobility of the drum and without impairment of hearing should not be a bar to acceptance of a candidate for the Army.

- (f) there is no disease of the bones or cartilages of the nose or nasal polypus or disease of the nasopharynx and accessory sinuses;

NOTE.—A small asymptomatic traumatic perforation of the nasal septum would not be a cause for outright rejection and such cases would be referred to the Adviser in Otolaryngology.

- (g) there are no enlarged glands due to tuberculosis or other diseases in the neck and other parts of the body and that the thyroid gland is normal;

N.B.—Scars of operations for the removal of tuberculosis glands are not a cause for rejection provided that there has been no active disease within the preceding 5 years and the chest is clinically and radiologically clear.

- (h) there is no disease of the throat, palate, tonsils or gums or any disease or injury affecting the normal function of either Mandibular joint;

N.B.—Simple hypertrophy of the tonsils, if there is no history of attacks of tonsillitis, is not a cause for rejection.

- (i) there is no sign of functional or organic disease of the heart and blood vessels;
- (j) there is no evidence of pulmonary tuberculosis or previous history of this disease or any other chronic disease of the lungs;
- (k) there is no evidence of any disease of the digestive system including any abnormality of the liver and spleen;
- (l) there is no hernia or tendency thereto;
- (m) there is no hydrocele, or definite varicocele or any other disease or defect of the genital organs;

N.B. (i) A candidate who has been operated for a hydrocele will be accepted if there are no abnormalities of the cord and testical and there is no evidence of filariasis;

- (ii) Undescended intra-abdominal testicle on the one side should not be a bar to acceptance of candidates for commissioning in the Armed Forces provided the other testicle is normal and there is no untoward physical or psychological effect due to the undescended testicle. Undescended testis retained in the inguinal canal or at the external abdominal ring is, however, a bar to acceptance unless corrected by operation.

- (n) there is no fistula and/or fissure of the anus, or evidence of haemorrhoids;

- (o) there is no disease of the kidneys. All cases of Glycosuria and Albuminuria will be rejected;

- (p) there is no disease of the skin, unless temporary or trivial. Scars which by their extent of position cause or are likely to cause disability or marked disfigurement are a cause for rejection;

- (q) there is no active latent or congenital venereal disease;

- (r) there is no history or evidence of mental disease. Candidates suffering from epilepsy, incontinence of urine or enuresis will not be accepted.

- (s) there is no squint or morbid condition of the eye or of the lids which is liable to a risk of aggravation or recurrence;

- (t) there is no active trachoma or its complications, and sequelae.

N.B.—Remedial operations are to be performed prior to entry. No guarantee is given for ultimate acceptance and it should be clearly understood by the candidates that the decision whether an operation is desirable or necessary is one to be made by their private medical adviser. The Government will accept no liability regarding the result of operation or any expense incurred.

3. Standards for Height, Weight and Chest measurements.

(a) *Height*.—(i) The height of a candidate will be measured by making him stand against the standard with his feet together. The weight should be thrown on the heels and not on the toes or outer sides of the feet. He will stand erect without rigidity and with the heels, calves, buttocks and shoulders touching the standard; the chin will be depressed to bring the vertex of the head level under the horizontal bar, and the height will be recorded in centimeters and parts of a centimetre to halves.

(ii) The minimum acceptable height for a candidate is 157 cm. except in the case of Gorkhas, Nepalese, Assamese and Garhwali candidates in whose case the height may be reduced by 5.0 cm.

NOTE.—Relaxation of height up to 2.5 cm. may be allowed where the Medical Board certifies that the candidate is likely to grow and come up to the required standard on completion of his training.

(iii) Air Force only.—To meet the special requirements for training as a pilot, the minimum height and leg length will be :—

Height	162.5 cm.
Leg length Hip to Heel	99.0 cm.

N.B.—On account of the lower age of candidates a margin of up to 5.0 cm. in height and 2.5 cm. in leg length may be given, provided it is certified by the Medical Board that the candidate is likely to grow and come up to required standard on completion of his training at the National Defence Academy.

(b) *Weight*.—(i) Weight will be taken with the candidate fully stripped or with under pants only. In recording weight, fraction of half a kg. will not be noted. A correla-

tion table between age, height and average weight is given below for guidance.

Age period	15--16	16--17	17--18
Height (cm)	Weight (Kg.)	Weight (Kg.)	Weight (Kg.)
157.00	43.5	45.0	47.0
160.00	45.0	46.5	48.0
162.00	46.5	48.0	50.0
165.00	48.0	50.0	52.0
167.50	49.0	51.0	53.0
170.00	51.0	52.5	55.0
173.00	52.5	54.5	57.0
175.00	54.5	56.0	59.0
178.00	56.0	58.0	61.0
180.00	58.5	60.0	63.0
183.00	61.0	62.5	65.0

(ii) It is not possible to lay down precise standards for weight in relation to height and age. The correlation table is, therefore, only a guide and cannot be applied universally. A 10 per cent departure from the average weight given in the table is to be considered as within normal limits. There may nevertheless be some individuals who according to the above standard may be over-weight but from the general build of the body are fit in every respect. The over-weight in such cases may be due to heavy bones and muscular development and not to obesity. Similarly for those who are under-weight, the criteria should be the general build of the body and proportionate development rather than rigid adherence to standards in the above table.

(c) *Chest*.—The chest should be well developed with a minimum range of expansion of 5.0 cm. The candidate's chest will be measured by making him stand erect with his feet together, and his arms raised over his head. The tape will be so adjusted round the chest that its upper edge touches the inferior angles of the shoulder blades behind, and its lower edge the upper part of the nipples in front. The arms will then be lowered to hang loosely by the side. Care will be taken that the shoulders are not thrown upwards or backwards so as to displace the tape. The candidate will then be directed to take a deep inspiration several times and the maximum and minimum expansions of the chest will be carefully noted. The minimum and maximum will then be recorded in cm. thus 84/89, 86/91 etc.

In recording the measurements, fraction of less than half a centimetre should not be noted.

N.B.—For Navy X-ray of chest is compulsory.

4. Dental conditions.

It should be ensured that a sufficient number of natural and sound teeth are present for efficient mastication.

(a) A candidate must have a minimum of 14 dental points to be acceptable. In order to assess the dental condition of an individual, points are allotted as under for teeth, in good apposition with corresponding teeth in the other jaw :

(i) Central incisor, lateral incisor, canine, 1st and 2nd premolar and underdeveloped 3rd molar—1 point each.

(ii) 1st and 2nd molar and fully developed third molar—2 points each.

When all 32 teeth are present, there will be a total count of 22 points.

(b) The following teeth in good functional apposition must be present in each jaw :

(i) Any 4 of the 6 anteriors.

(ii) Any 6 of the 10 posteriors.

(c) Candidates suffering from severe pyorrhoëa will be rejected. Where the state of pyorrhoëa is such that in the opinion of the dental officer, it can be cured without extraction of teeth, the candidate may be accepted.

5. Visual Standards.

(a) Visual acuity :

Standard I

Distant Vision	Better eye V-6/6	Worse eye V-6/9 Correctable to 6/6
Near Vision	Reads 0.5 or J1	Reads 0.5 or J1

Standard II

Distant Vision (corrected)	6/6	6/9
Near Vision (corrected)	J1	J2

Myopia of not more than —2.5 D in any one meridian (.5 D in case of Navy).

Hypermetropia of not more than 0+3.5D in any one meridian.

NOTE.—1. Fundus and Media to be healthy and within normal limits.

2. No undue degenerative signs of vitreous or choric retina to be present suggesting progressive myopia.

3. Must possess good binocular vision, (fusion faculty and full field of vision in both eyes).

4. There should be no organic disease likely to exacerbations or deterioration.

(b) Colour vision—

—Inability to distinguish primary colours will not be regarded as cause for rejection but the fact will be noted in the proceedings and the candidate informed.

(c) Requirement for Services :

ARMY-VS II (minimum Standard)

NAVY (i).—V.S.I. No glasses will be worn by candidates for the Executive Branch but these standards may be relaxed if permitted by Naval Headquarters, for a limited number of otherwise suitable candidates for Engineering Electrical and Supply and Secretariat Branches up to 6/18, 6/36 correctable to 6/6 both eyes with glasses.

(ii) Special requirement.

Night Vision Standard—Candidates who fail to secure Grade 11 (eleven) very good/good (Della casa) are to be rejected.

Heterophoria

Limits of Heterophoria with the Maddox Rod/Wing tests (Provided convergence insufficiency and other symptoms are absent) must not exceed :—

(a) At 6 metres—

Exophoria 16 prism dioptres

Esophoria 8 prism dioptres

Hyperphoria 1 prism dioptre

(b) At 30 cms—

Exophoria 6 prism dioptres

Esophoria 6 prism dioptres

Hyperphoria 1 prism dioptre

Limits of hypermetropia (under homatropine)

Better Eye

Hypermetropia 1.50 dioptres

Simple Hypermetropic astigmatism 0.75 dioptre

Compound Hypermetropic astigmatism The error in the more hypermetropic meridian must not exceed 1.5

	dioptries of which not more than 0.75 dioptré may be due to astigmatism.
<i>Worse Eye</i>	
Hypermetropia	2.5 dioptries
Simple Hypermetropic astigmatism	1.5 dioptries
Compound Hypermetropic astigmatism.	The error in the more hypermetropic meridian must not exceed 2.5 dioptries of which not more than 1.0 dioptré may be due to astigmatism.
Colour-Preception	Standard I (Martin Lantern)

Binocular vision

The candidates must possess good binocular vision (fusion faculty and full field of vision in (both eyes).

AIR FORCE (i). V.S.I. No Glasses will be worn.

(ii) *Special requirements* :

Manifest Hypermetropia must not exceed 2.25D.

Ocular Muscle Balance :

Heterophoria with the Maddox Rod test must not exceed

- (a) at 6 metres Exophoria 6 prism dioptries
Esophoria 6 prism dioptries.
Hyperphoria 1 prism dioptré.
- (b) at 33 cms. Exophoria 16 prism dioptries.
Esophoria 6 prism dioptries.
Hyperphoria 1 prism dioptré.

Binocular vision.—Must possess good binocular vision (fusion and stereopsis with good amplitude and depth).

Colour Perception—Normal or defective safe.

6. *Hearing Standard.*

Hearing will be tested by speech test. Where required audiometric records will also be taken.

(a) *Speech Test.*

The candidate should be able to hear a forced whisper with each ear separately standing with his back to the examiner at a distance of 609.5 cm. in a reasonably quiet room. The examiner should whisper with the residual air : that is to say at the end of an ordinary expiration.

(b) *Audiometric Record.*

The candidate will have no loss of hearing in either ear at frequencies 128 to 4096 cycles per second (Audiometry reading between +10 and -10).

APPENDIX III

Brief particulars of the Services are given below :—

TRAINING :

The selected candidates for the three Services (*viz.*, Army, Navy and Air Force) are given preliminary training, both academic and physical, for a period of 3 years at the National Defence Academy, which is an Inter-Service Institution. The training during the first two and a half years is common to the cadets of the three wings and a successful cadet is deemed to have attained the Intermediate Standard in his academic studies.

2. On passing out from the National Defence Academy, Army Cadets go to the Indian Military Academy, Dehradun, Naval Cadets to the Cadets' Training Ship and Air Force cadets to Air Force Flying College, Jodhpur.

3. At the I.M.A. Army Cadets are known as Gentlemen cadets and are given strenuous military training for a period of one year aimed at turning out officers capable of leading infantry sub-units. On successful completion of training

Gentlemen cadets are granted Permanent Commission in the rank of 2nd/Lt subject to being medically fit in Category 'A'.

4. The Naval cadets are selected for the Executive, Engineering, Electrical and Supply and Secretariat Branches of the Navy, on passing out from the National Defence Academy and are given sea training on the Cadets' Training Ship for a period of six months, on successful completion of which, they are promoted to the rank of Midshipman. After a further training of 12 months in the respective branches to which they are allocated, they are promoted to the rank of acting sub-Lieutenants.

5. Air Force cadets receive Basic and Intermediate flying training at the Air Force Flying College for one year and a further training for six months in the Advanced Stage in any of the three roles for which he is considered fit *e.g.* Fighter, Transport or Logistic Support. After successful completion of training, they are commissioned as Pilot Officers and awarded Flying badges. If a pupil pilot shows inadequate aptitude for flying, he may be considered for General Duties (Navigation) Branch or for training in the Administrative and Special Duties Branches, or in the Equipment Branch where they are given training for a period of six months to one year, on successful completion of which they are commissioned as Pilot Officers on probation.

TERMS AND CONDITIONS OF SERVICE

6. ARMY OFFICERS.

(i) PAY

Rank	Pay Scales	Rank	Pay Scales
	Rs.		Rs.
2nd Lieut. ..	400	Lt. Colonel	1400 fixed
Lieut. ..	450-540	(time scale)	
Captain ..	750-990	Colonel	1550-1730
Major ..	1050-1300	Brigadier	1750-1950
Lt. Colonel ..	1350-1500	Maj-General	2500-125/2-2750
(By Selection)		Lt. General	3000 p.m.

(ii) ALLOWANCES

In addition to pay, an officer at present receives the following allowances :—

- (a) Compensatory (city) and Dearness Allowances are admissible at the same rates and under the same conditions as are applicable to the civilian Gazetted Officers from time to time.
- (b) A kit maintenance allowance of Rs. 40 p.m. (in the case of Officers of and below the rank of Brigadier only).
- (c) A special disturbance allowance of Rs. 30 p.m. (in the case of Officers of and below the rank of Brigadier only).
- (d) *Expatriation allowance* : When Officers are serving outside India, expatriation allowance ranging from Rs. 50 to Rs. 250 p.m. depending on rank held, is admissible.
- (e) *Separation allowance* : Married Officers posted to non-family stations are entitled to receive separation allowance of Rs. 70 p.m.

(iii) POSTING

Army Officers are liable to serve anywhere in India and abroad.

(iv) PROMOTIONS

(a) *Substantive promotion*

The following are the service limits for the grant of substantive promotion to higher ranks :—

By time scale

Lt. ..	2 years of commissioned service
Capt. ..	6 years of commissioned service
Major ..	13 years of commissioned service

Lt. Col. from Major if not promoted by selection .. 24 years of commissioned service

By Selection

Lt. Col. .. 16 years of commissioned service
Col. .. 20 years of commissioned service
Brigadier .. 23 years of commissioned service
Maj. Gen. .. 25 years of commissioned service
Lt. Gen. .. 28 years of commissioned service
Gen. .. No restriction

(b) Acting promotion

Officers are eligible for acting promotion to higher ranks on completion of the following minimum service limits, subject to availability of vacancies.

Captain .. 3 years.
Major .. 6 years.
Lt. Colonel .. 6½ years.
Colonel .. 8½ years.
Brigadier .. 12 years.
Maj. General .. 20 years.
Lt. General .. 25 years.

7. NAVAL OFFICERS**(i) PAY**

Rank	Pay Scales	
	General Service	Naval Aviation
	Rs.	Rs.
Midshipman	270	270
Ag. Sub/Lieut.	400	475
Sub.Lieut.	450-480	535-565
Lieut.	630-910	710-990
Lieut. Cdr.	1000-1300	1050-1300
Commander	1350-1500	1350-1500
Captain	1550-1950	1550-1950
	Commodore receives pay to which entitled according to seniority as Captain.	
Rear Admiral	2500-125/2-2750	2500-125/2-2750
Vice Admiral	Rs. 3,000	Rs. 3,000

(ii) ALLOWANCES

Naval Aviation Officers are entitled to Flying Bounty at rates and under conditions applicable to corresponding ranks of Air Force Officers.

Naval Officers are entitled to other allowances as applicable to Army Officers of equivalent Rank. In addition certain special concessions like hardship money, submarine allowance and diving pay are admissible to them.

(iii) PROMOTIONS**(a) Substantive Promotion**

The following are the service limits for grant of substantive promotion to higher ranks :—

By Time Scale

Sub. Lt. .. 1 year
Lt. .. 3 years (subject to gain/forfeiture of seniority).
Lt. Cdr. .. 8 years' seniority as Lt. (If not promoted by selection)

Cdr. .. 24 years' commissioned service.

By Selection

Cmdr. Executive Branch .. 2-8 years' seniority as Lt. Cdr.
Cmdr. Engineering Branch .. 2-10 years' seniority as Lt. Cdr.
Cmdr. Electrical Branch .. 2-10 years' seniority as Lt. Cdr.
Cndr. Supply and Secretariat Branch .. 4-10 years' seniority as Lt. Cdr.
Capt. .. 4 years' seniority as Cmdr.
Rear Admiral .. No restriction.
Vice Admiral .. No restriction.

(b) Acting Promotion

There is no service limit for grant of acting promotion in the Navy except to the rank of Lt. Cdr. for which an Officer should have attained 6 years' seniority as Lieutenant.

8. AIR FORCE OFFICERS**(i) PAY**

Rank	Pay Scales	Rank	Pay Scales
	Rs.		Rs.
Pilot Officer	475	Group Capt.	1550-1730
Flying Officer	535-625	Air Cdr.	1750-1950
Flight Lieut.	790-990	Air Vice Marshal	2500-125/2-2750
Sqn. Ldr.	1050-1300		
Wing Cdr. (Selective)	1300-1500	Air Marshal	3000
Wing Cdr. (Time scale)	1400 fixed	Air Chief Marshal	3000 (to be revised)

(ii) ALLOWANCES

Flying Bounty—Officers of the General Duties (Pilots and Navigators) Branches are entitled to get flying bounty at the following rates :—

Pilot Officer to Wing Cdr. .. Rs. 4,200 per annum.
Gp. Capt. and above .. Rs. 3600 per annum.

Other allowances

As for Army Officers

(iii) Qualification Pay/Grant—Admissible to GD Officers for possessing certain prescribed qualifications at the rates given below :

	Lower Rate	Higher Rate
Qualification Pay	Rs. 70 PM	Rs. 100 PM
Qualification Grant	Rs. 1600	Rs. 2400

(iv) PROMOTIONS**(a) Substantive Promotion**

The following are the service limits for the grant of Substantive promotion to higher ranks :

By Time Scale

Flying Officer .. 1 year's commissioned service.
Flight Lt. .. 5 years' commissioned service.
Sqn. Ldr. .. 11 years' commissioned service.
Wing Cdr. .. On completion of 24 years of commissioned service if not promoted by selection.

By Selection

Wing Cdr. .. 3 years' service as Sqn. Ldr.
Gp. Capt. .. 4 years' service as Wing Cdr.
Air Commodore .. 3 years' service as Gp. Capt.

Air Vice Marshal 3 years' service as Air Com-
modore.

Air Vice Marshal 15 years (after service of 5
years in the ranks of W/Cdr.,
Gp./ Capt. and A/Cdre.)

(b) *Acting Promotion*

The following are the minimum service limits required for
acting promotion of officers :

Flt. Lt. 2 years.

Sqn. Ldr. 5 years.

Wing Cdr. 6 years.

(After service of 1 year in the rank of Sqn. Ldr.)

Gp. Capt. 8 years (after service of 1 year
in the rank of Wing Cdr.)

Air Cdre 11½ years (after service of 3
years in the ranks of W/Cdr.
and Gp./Capt.).

(Service limits in the case of officers of Ground Duties
Branch is one year more in the ranks of Flt. Lt. and Sqn. Ldr.
½ year more in the ranks of W/Cdr. Gp./Cpt. and Air/
Cdre.).

9. RETIRING BENEFITS

Pension, gratuity and casualty pensionary award will be
admissible in accordance with the rules in force from time
to time.

10. LEAVE

Leave will be admissible in accordance with the rules in
force from time to time.